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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,214	11/14/2003	Joseph John Sumakeris	5308-223CT	2561

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MYERS BIGEL SIBLEY & SAJOVEC  
PO BOX 37428  
RALEIGH, NC 27627

EXAMINER
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DHINGRA, RAKESH KUMAR

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	Application No. 10/714,214	Applicant(s) SUMAKERIS ET AL.	
	Examiner Rakesh K. Dhingra	Art Unit 1763	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 19 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 03 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
Please see continuation sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
**PARVIZ HASSANZADEH**  
**SUPERVISORY PATENT EXAMINER**

  
Rakesh Dhingra

## Continuation Sheet

## Regarding Claims 1, 2

It appears from applicant's remarks regarding removal of liner (pages 9, 10) and drawing (Figure 1) that only lower liner 150 is removable without dis-assembly of susceptor, since for removing upper liner 160 the top susceptor plate 120 would require to be disassembled from the pair of side susceptor plates 130.

## Regarding Claims 3 and 8-10

Regarding Applicant's remarks about platter in Kordina's reference, examiner responds that though not explicitly shown in Figures 4-6, a platter for holding a substrate would obviously be required in Kordina's apparatus, for example as shown in Figure 2 of Kordina (prior art) where he teaches a platter (plate 5) interposed between a wafer 2 and a susceptor 6. Kuramata teach a susceptor (like a platter) 24 for holding substrate 3 and liner 22 with an opening (not shown) for gases to flow over the substrate 3. Further, Mezey teaches an induction heating apparatus (similar to the applicant's invention) that includes a wafer support disc (like a platter) 126 and a recessed area (like an opening) 134 that overlies the platter region. Motivation to combine the references (Kordina, Kuramata and Mezey) comes from the fact that top of wafer surface can be held substantially planar with the remaining area on the surface of the liner (Mezey – column 11, lines 36-40).

## Regarding Claims 4 and 11

Regarding applicant's comments about Kuramata and Mezey not teaching about variation in thickness of liner, examiner responds that Kuramata teaches that effective thickness of liner 22 varies in the direction of gas flow (Figure 1 and pages 9,10 of the English translation of Kuramata reference) to enable control the gas flow rate distribution. Further, Mezey teaches an induction heating apparatus (similar to the applicant's invention) and includes (Figure 1) housing (like susceptor) 30 that surrounds at least a portion of processing space 46 and velocity gradient plate (like liner) 150 whose effective thickness can be varied to achieve uniformity of deposition. Thus both Kuramata and Mezey teach liner whose thickness varies.

## Regarding Claims 5-7,12

Regarding applicant's comments about TaC coating in Holzlien's apparatus, examiner responds that Kordina already teaches that susceptor 11-14 comprises a core of graphite (first material) and a susceptor coating of SiC (second material) and that liners 16, 17 are interposed between susceptor coating and the processing chamber. Reference by Holzlien is used since it pertains to analogous art and teaches that susceptor 21 has a coating 20 of TaC. Holzlien also teaches that other metals or metal compounds could also be used for coating depending upon other process conditions. Thus this provides the motivation for forming a coating on the susceptor (column 7, lines 40-55).